**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

| | | |
|---|---|---|
| APPLICANT: | Patrick M. Lavelle | EXAMINER: Uchendu O. Anyaso |
| SERIAL NO.: | 09/698,918 | GROUP ART UNIT: 2675 |
| FILED: | October 27, 2000 | Docket: 8002A-29 |
| FOR: | VEHICLE DISPLAY DEVICE HAVING A WIRELESS TRANSMITTER | |

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**TRANSMITTAL OF APPEAL BRIEF**

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Respectfully submitted,

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CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

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Dated: July 21, 2004

Michael F. Morano

PTO/SB/17 (10-03)
Approved for use through 07/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE


# FEE TRANSMITTAL for FY 2004

*Effective 10/01/2003. Patent fees are subject to annual revision.*

☐ Applicant claims small entity status. See 37 CFR 1.27

**TOTAL AMOUNT OF PAYMENT** ($) 330.00

| *Complete if Known* | |
|---|---|
| Application Number | 09/698,918 |
| Filing Date | October 27, 2000 |
| First Named Inventor | Patrick M. Lavelle |
| Examiner Name | Uchendu O. Anyaso |
| Art Unit | 2675 |
| Attorney Docket No. | 8002A-29 |



## METHOD OF PAYMENT *(check all that apply)*

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Deposit Account Name: F. Chau & Associates, LLC

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## FEE CALCULATION

### 1. BASIC FILING FEE

| Large Entity Fee Code | Large Entity Fee ($) | Small Entity Fee Code | Small Entity Fee ($) | Fee Description | Fee Paid |
|---|---|---|---|---|---|
| 1001 | 770 | 2001 | 385 | Utility filing fee | |
| 1002 | 340 | 2002 | 170 | Design filing fee | |
| 1003 | 530 | 2003 | 265 | Plant filing fee | |
| 1004 | 770 | 2004 | 385 | Reissue filing fee | |
| 1005 | 160 | 2005 | 80 | Provisional filing fee | |

**SUBTOTAL (1)** ($) 0.00

### 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

| | Extra Claims | | Fee from below | Fee Paid |
|---|---|---|---|---|
| Total Claims | -20** = | | x 18 | = 0.00 |
| Independent Claims | - 3** = | | x 86 | = 0.00 |
| Multiple Dependent | | | 290 | = |

| Large Entity Fee Code | Large Entity Fee ($) | Small Entity Fee Code | Small Entity Fee ($) | Fee Description |
|---|---|---|---|---|
| 1202 | 18 | 2202 | 9 | Claims in excess of 20 |
| 1201 | 86 | 2201 | 43 | Independent claims in excess of 3 |
| 1203 | 290 | 2203 | 145 | Multiple dependent claim, if not paid |
| 1204 | 86 | 2204 | 43 | ** Reissue independent claims over original patent |
| 1205 | 18 | 2205 | 9 | ** Reissue claims in excess of 20 and over original patent |

**SUBTOTAL (2)** ($) 0.00

**or number previously paid, if greater; For Reissues, see above

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

| Large Entity Fee Code | Large Entity Fee ($) | Small Entity Fee Code | Small Entity Fee ($) | Fee Description | Fee Paid |
|---|---|---|---|---|---|
| 1051 | 130 | 2051 | 65 | Surcharge - late filing fee or oath | |
| 1052 | 50 | 2052 | 25 | Surcharge - late provisional filing fee or cover sheet | |
| 1053 | 130 | 1053 | 130 | Non-English specification | |
| 1812 | 2,520 | 1812 | 2,520 | For filing a request for *ex parte* reexamination | |
| 1804 | 920* | 1804 | 920* | Requesting publication of SIR prior to Examiner action | |
| 1805 | 1,840* | 1805 | 1,840* | Requesting publication of SIR after Examiner action | |
| 1251 | 110 | 2251 | 55 | Extension for reply within first month | |
| 1252 | 420 | 2252 | 210 | Extension for reply within second month | |
| 1253 | 950 | 2253 | 475 | Extension for reply within third month | |
| 1254 | 1,480 | 2254 | 740 | Extension for reply within fourth month | |
| 1255 | 2,010 | 2255 | 1,005 | Extension for reply within fifth month | |
| 1401 | 330 | 2401 | 165 | Notice of Appeal | |
| 1402 | 330 | 2402 | 165 | Filing a brief in support of an appeal | 330.00 |
| 1403 | 290 | 2403 | 145 | Request for oral hearing | |
| 1451 | 1,510 | 1451 | 1,510 | Petition to institute a public use proceeding | |
| 1452 | 110 | 2452 | 55 | Petition to revive - unavoidable | |
| 1453 | 1,330 | 2453 | 665 | Petition to revive - unintentional | |
| 1501 | 1,330 | 2501 | 665 | Utility issue fee (or reissue) | |
| 1502 | 480 | 2502 | 240 | Design issue fee | |
| 1503 | 640 | 2503 | 320 | Plant issue fee | |
| 1460 | 130 | 1460 | 130 | Petitions to the Commissioner | |
| 1807 | 50 | 1807 | 50 | Processing fee under 37 CFR 1.17(q) | |
| 1806 | 180 | 1806 | 180 | Submission of Information Disclosure Stmt | |
| 8021 | 40 | 8021 | 40 | Recording each patent assignment per property (times number of properties) | |
| 1809 | 770 | 2809 | 385 | Filing a submission after final rejection (37 CFR 1.129(a)) | |
| 1810 | 770 | 2810 | 385 | For each additional invention to be examined (37 CFR 1.129(b)) | |
| 1801 | 770 | 2801 | 385 | Request for Continued Examination (RCE) | |
| 1802 | 900 | 1802 | 900 | Request for expedited examination of a design application | |

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid

**SUBTOTAL (3)** ($) 330.00

## SUBMITTED BY

(Complete *(if applicable)*)

| | | | | | |
|---|---|---|---|---|---|
| Name *(Print/Type)* | Michael F. Morano | Registration No. *(Attorney/Agent)* | 44,952 | Telephone | 516-357-0091 |
| Signature | Michael F. Morano | | | Date | July 21, 2004 |

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**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

**Applicants:** Patrick M. Lavelle et al.

**Examiner:** Uchendu O. Anyaso

**Serial No:** 09/698,918

**Group**: Art Unit 2675

**Filed:** October 27, 2000

**Docket:** 8002A-29

**For:** VEHICLE DISPLAY DEVICE HAVING A WIRELESS TRANSMITTER



**APPEAL BRIEF**

**Appeal from Group 2675**

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## I. INTRODUCTION

This Appeal is from a Final Office Action mailed on January 28, 2004 (Paper No. 12) (hereinafter, referred to as the "Final Action") finally rejecting claims 1-10 and 15-27 of the above-identified application, and an Advisory Action mailed on April 28, 2004 (Paper No. 14). Applicants commenced this Appeal by a Notice of Appeal filed on May 19, 2004, and hereby submit this Appeal Brief.

## II. REAL PARTY IN INTEREST

The real party in interest for the above-identified application is Audiovox Corporation, the assignee of the entire right, title and interest in and to the subject application by virtue of an assignment of recorded in the U.S. Patent and Trademark Office at reel 011270 frame 0992.

## III. RELATED APPEALS AND INTERFERENCES

There are no Appeals or Interferences known to Applicants, Applicants' representatives or the Assignee, which would directly affect or be indirectly affected by or have a bearing on the Board's decision in the pending Appeal.

## IV. STATUS OF CLAIMS

Claims 1-10 and 15-27 are pending, stand rejected and are under appeal. The claims on appeal are set forth in the attached Appendix.

Claims 1, 25 and 26 are independent claims. Claims 2-10 and 15-24 depend directly or indirectly from claim 1. Claim 27 depends from claim 26.

## V. STATUS OF AMENDMENTS

After final Amendments were filed on March 29, 2004 in this case subsequent to the Final Action, but were not entered for purposes of Appeal. The after final Amendments were not entered because they were deemed by the Examiner to raise new issues that would require further consideration and/or search and not to place the application in better form for appeal by materially reducing or simplifying the issues for appeal.

## VI. SUMMARY OF THE INVENTION

In general, the claimed embodiments of the invention are related to a display device adapted to wirelessly transmit audio signals from at least two input sources to a plurality of wireless headphone sets.

### A. Embodiment Of Claim 1

Claim 1 recites a display device, comprising at least one wireless transmitter adapted to wirelessly transmit audio signals from at least two input sources to each wireless headphone set of a plurality of headphone sets as a left audio channel and a right audio channel, each of the channels having a different frequency for each wireless headphone set of the plurality of wireless headphone sets.

For purposes of illustration, the embodiment of claim 1 will be discussed hereafter with reference to the embodiment depicted in Figure 1B and the corresponding description in Applicants' specification (hereinafter, "Spec.") on page 19, lines 1-17. It is to be understood that the following description of the claimed embodiment with reference to Figure 1B is for illustrative purposes to provide some context for the claimed embodiment, but nothing herein shall be construed as placing any limitation on the claimed embodiment.

More specifically, by way of example, Figure 1B shows at least one transmitter (e.g. transmitter 510) adapted to wirelessly transmit audio signals from at least two input sources (e.g., input sources 114, 116, 118, 120, 122, or 126) to each wireless headphone set of a plurality of headphone sets (e.g., headphone sets 152, 154) as a left audio channel and a right audio channel (e.g., programs 1 through n having respective left and right channels as shown in 550), each of the channels having a different frequency for each wireless headphone set of the plurality of wireless headphone sets (e.g., as described in the Spec., at page 21, lines 10 – 19, explaining that different frequencies may be used for left and right channels of each wireless headphone set so as to avoid frequency interference between the headphone sets when more than one wireless headphone set is actively used).

**B. <u>Embodiment Of Claim 25</u>**

Claim 25 recites a display device comprising a first wireless transmitter adapted to wirelessly transmit audio signals from a first external media source to a first wireless headphone set as a left audio channel and a right audio channel, and a second wireless transmitter adapted to wirelessly transmit audio signals from a second external

media source to a second wireless headphone set as a left audio channel and a right audio channel, wherein each of the left audio and right audio channels have a different frequency for each of the first and second wireless headphone sets.

For purposes of illustration, the embodiment of claim 25 will be discussed hereafter with reference to the embodiment depicted in Figure 1A and the corresponding description in the Spec. on page 11, line 17 to page 12 line 9. It is to be understood that the following description of the claimed embodiment with reference to Figure 1A is for illustrative purposes to provide some context for the claimed embodiment, but nothing herein shall be construed as placing any limitation on the claimed embodiment.

More specifically, by way of example, Figure 1A shows a first wireless transmitter (e.g., transmitter 128) adapted to wirelessly transmit audio signals from a first external media source (e.g., any of input sources 114, 116, 118, 120, 122, or 126) to a first wireless headphone set (e.g., headphone set 152) as a left audio channel and a right audio channel (e.g., L 2.3 MHz and R 2.8 MHz), and a second wireless transmitter (e.g., transmitter 130) adapted to wirelessly transmit audio signals from a second external media source (e.g., any of input sources 114, 116, 118, 120, 122, or 126) to a second wireless headphone set (e.g., headphone set 152) as a left audio channel and a right audio channel (e.g., L 2.5 MHz and R 3.0 MHz), wherein each of the left audio and right audio channels have a different frequency for each of the first and second wireless headphone sets (e.g., as shown in FIG. 1A and described in the Spec., at page 21, line 10 – 19).

C. **Embodiment Of Claim 26**

Claim 26 recites a display device comprising a first wireless transmitter adapted to wirelessly transmit audio signals from one of two input sources to a first wireless headphone set, and a second wireless transmitter adapted to wirelessly transmit audio signals from the other of the two input sources to a second wireless headphone set.

For purposes of illustration, like the embodiment of claim 25, the embodiment of claim 26 will be discussed hereafter with reference to the embodiment depicted in Figure 1A and the corresponding description in the Spec. on page 11, line 17 to page 12 line 9. It is to be understood that the following description of the claimed embodiment with reference to Figure 1A is for illustrative purposes to provide some context for the claimed embodiment, but nothing herein shall be construed as placing any limitation on the claimed embodiment.

More specifically, by way of example, Figure 1A shows a first wireless transmitter (e.g., transmitter 128) adapted to wirelessly transmit audio signals from one of two input sources (e.g., any of input sources 114, 116, 118, 120, 122, or 126) to a first wireless headphone set (e.g., headphone set 152), and a second wireless transmitter (e.g., transmitter 130) adapted to wirelessly transmit audio signals from the other of the two input sources (e.g., any of input sources 114, 116, 118, 120, 122, or 126) to a second wireless headphone set (e.g., headphone set 152).

## VII. ISSUES

**(1)** Claims 1-9, 15-18 and 25-27 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,380,978 ("Adams") in view of U.S. Patent No. 5,610,822 ("Murphy") and further in view of U.S. Patent No. 6,301,637 ("Boyden").

Thus, one issue on appeal is whether the combination of Adams, Murphy and Boyden is legally sufficient to establish a *prima facie* case of obviousness against claims 1-9, 15-18 and 25-27.

**(2)** Claim 10 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Adams in view of Murphy, and further in view of Boyden, as in claim 1, and further in view of U.S. Patent No. 6,134,223 ("Burke").

Thus, another issue on appeal is whether the combination of Adams, Murphy, Boyden and Burke is legally sufficient to establish a *prima facie* case of obviousness against claim 10.

**(3)** Claims 20-24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Adams in view of Murphy, and further in view of Boyden, as in claim 1, and further in view of U.S. Patent No. 5,793,413 ("Hylton").

Thus, another issue on appeal is whether the combination of Adams, Murphy, Boyden and Hylton is legally sufficient to establish a *prima facie* case of obviousness against claims 20-24.

## VIII. GROUPING OF CLAIMS

**For Issue (1) above:**

(i) Claims 2-9 and 15-18 stand or fall with Claim 1; and

(ii) Claim 27 stands or falls with Claim 26.

**For Issue (2) above:**

Claim 10 stands or falls with Claim 1.

**For Issue (3) above:**

Claims 20-24 stand or fall with Claim 1.

## IX. ARGUMENTS

### A. The Combination Of Adams, Murphy And Boyden Is Legally Deficient To Support A *Prima Facie* Case Of Obviousness Against Claims 1, 25 And 26

In rejecting claims under 35 U.S.C. 103, the Examiner bears the initial burden of presenting a prima facie case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532 (Fed. Cir. 1993). To establish a prima facie case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. In re Fine, 837 F.2d 1071, 1074 (Fed. Cir. 1988). In addition, all the claim limitations must be taught or suggested by the prior art, In re Royka, 490 F.2d 981 (C.C.P.A. 1974), and "all words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385 (C.C.P.A. 1970). If the Examiner fails to establish a prima facie case, the

rejection is improper and must be overturned. In re Rijckaert, 9 F.3d at 1532 (citing In re Fine, 837 F.2d at 1074).

In the case at bar, claims 1, 25 and 26 stand finally rejected as being obvious based on the combination of Adams, Murphy and Boyden. The rejections of claims 1, 25 and 26 are based primarily on the teachings of Adams, with reliance on the teachings of Murphy and Boyden to cure the deficiencies of Adams. For purposes of discussion, a brief summary of the relevant teachings of Adams, Murphy and Boyden follows.

Adams discloses a portable DVD player including display and a digital video enhancer that may be used in an automobile. The DVD player may include an optional IR transmitter for wireless headphones.

Murphy is directed to a position-related multimedia presentation system for use in a vehicle that presents information related to the position of the vehicle to an occupant of the vehicle. For example, video information including views related to features over which an aircraft is flying is displayed on a display unit located on the back of a seat of an aircraft.

Boyden discloses an audio system connected to a conventional source of audio signals, such as a radio, tape player, CD player or cellular telephone. The audio system includes left and right acoustic modules. The audio system of Boyden uses a single audio source. Respective signals having different frequencies for left and right modules may be generated using an independent transmitter and receiver circuit for each module.

Appellants respectfully submit that at the very least, the combination of Adams, Murphy and Boyden is legally deficient to support a prima facie case of obviousness against claims 1, 25 and 26. In particular, Appellants maintain that the combination of Adams, Murphy and Boyden fails to disclose or suggest various elements of claims 1, 25 and 26. Further, Appellants submit that one of ordinary skill in the art would not be motivated to combine the relevant teachings of Adams, Murphy and Boyden in the manner suggested in the Final Action, since there is no suggestion for the combination.

The Examiner's bases for rejecting claims 1, 25 and 26 are set forth on pages 2-4 of the Final Action. The Examiner's obviousness arguments for claims 1, 25 and 26 are presented together in a single rejection under 35 U.S.C. § 103(a).

**1. The combination of Adams, Murphy and Boyden does not disclose or suggest a single transmitter for wirelessly transmitting audio signals on left and right channels**

Claims 1 and 25 each recite one transmitter for wirelessly transmitting audio signals to a headphone set as left and right channels. Specifically, claim 1 recites "at least one wireless transmitter . . . adapted to wirelessly transmit the audio signals . . . to each wireless headphone set . . . as a left audio channel and a right audio channel", and claim 25 recites a first wireless transmitter adapted to wirelessly transmit audio signals as a left audio channel and a right audio channel and a second wireless transmitter adapted to wirelessly transmit audio signals as a left audio channel and a right audio channel. In each case one transmitter is used to transmit audio signals on right and left channels, wherein the right and left channels have different frequencies.

The combination of the cited references simply does not disclose or suggest using a one transmitter to accomplish wireless transmission of audio signals on the left and right channels.

The Examiner's obvious analysis of claims 1 and 25 begins on page 2 of the Final Action by citing Adams (col. 5, lines 36-46, 56-60, Figure 2A) as disclosing a portable video display device for use in an automobile and by citing Murphy as disclosing the concept of at least two input sources (col. 3, lines 26-34, Figure 2 at 36, 40a-40n). The Examiner acknowledges that Adams and Murphy "do not teach the display [and] the headphones with left and right audio channels". Final Action at 3.

In an effort to cure the deficiencies of Adams and Murphy in this regard, the Examiner relies on Boyden (Col. 9, lines 25-35, Figure 13 and 14 at 120; col. 9, line 59-61, Figure 15 at 170; Figure 18 at 210, 212) as teaching "how to achieve an audio system that has left and right audio channels with different frequency signals in the audio system". Final Office Action at 3-4.

It is respectfully submitted that Examiner's reliance on Boyden in this regard is misplaced. Indeed, Appellants respectfully submit that Boyden teaches away from the embodiments claimed in claims 1 and 25.

Unlike the embodiment of the present invention defined in claim 1, Boyden fails to address the use of a single wireless transmitter to transmit audio signals on left and right audio channels from at least two input sources to a plurality of wireless headphone sets. Indeed, Boyden teaches away from such a configuration by disclosing the use of two transmitters to transmit left and right frequency signals from one input source. In Boyden, a first transmitter is used to transmit signals to the right module and a second transmitter is

used to transmit signals to the left module. See Boyden, col. 9, lines 25-35 ("two independent (different frequency) signals, one for the right module and one for the left module, each with an independent transmitter (primary) and receiver (secondary) circuit"). Furthermore, Boyden does not contain any disclosure regarding transmission of audio signals from more than one input source to multiple headphone sets.

Therefore, the embodiment as recited in claim 1 represents an improvement over Boyden in that less components (i.e., a single transmitter) can be used to transmit audio signals, separated into different left and right channels, from more than one input source. As such, the addition of Boyden does not render obvious the wireless transmitter design as recited in claim 1.

Similarly, the embodiment as recited in claim 25 uses a first transmitter to transmit a first set of audio signals from a first media source on left and right channels to a first headphone set and a second wireless transmitter to transmit a second set of audio signals from a second media source on left and right channels to a second headphone set. Therefore, claim 25 requires a total of at least four frequencies, each of the left audio and right audio channels having a different frequency for each headphone set.

In stark contrast, when transmitting signals from one input source, Boyden requires one transmitter for a left channel and a second transmitter for the right channel. Therefore, according to the teachings in Boyden, four transmitters instead of two would be required to transmit the audio signals in accordance with the embodiment defined in claim 25. As such, Boyden teaches away from the more efficient design claimed in claim 25.

Accordingly, for at least the reason that Boyden fails to disclose and teaches away from a single transmitter for wirelessly transmitting audio signals on left and right channels having different frequencies, claims 1 and 25 are patentable and nonobvious over Adams, Murphy and Boyden.

**2. The combination of Adams, Murphy and Boyden does not disclose or suggest the use of different frequencies between different wireless headphone sets**

In the Final Action, the Examiner maintains that Boyden teaches "how to achieve an audio system that has left and right audio channels with different frequency signals" and that Murphy teaches the concept of at least two input sources, wherein one input source provides signals to one headphone and a second input source provides signals to a second headphone. Final Action at 7. However, Appellants submit that there is no teaching or suggestion in the cited references to use different frequencies for each wireless headphone set.

Claim 1 recites "each of the channels having a different frequency for each wireless headphone set of the plurality of wireless headphone sets" and similarly, claim 25 recites "each of the left audio and right audio channels having a different frequency for each of the first and second wireless headphone sets".

Although Boyden relates to an audio system having left and right acoustic modules, Applicants respectfully submit that Boyden contains no teaching or suggestion regarding the use of different frequencies for channels between multiple headphone sets. Indeed, Boyden relates to a single user system, wherein a single audio source is worn on the body of a user. Therefore, there is no consideration of multiple headphone sets or users. There is simply no need for this feature in Boyden since Boyden does

not contemplate multiple headphone sets that, for example, allow users to listen to audio from multiple sources. As such, there is no suggestion to utilize the feature of different frequencies between multiple headphone sets, and the Examiner is engaging in impermissible hindsight analysis in concluding that such a suggestion exists. Indeed, Boyden discourages the use of headphones altogether by stating that they are often uncomfortable and block or attenuate environmental sounds causing a wearer to lose contact with the surroundings. See col. 1, lines 30-50.

Although Murphy relates to a system for multiple users, there is also no suggestion or teaching in Murphy relating to wireless transmission of audio signals over different frequencies. The system of Murphy is a wired system and is contemplated for use in mass transit vehicles, such as aircraft where the display devices are found on the seat in front of a passenger and headphones are connectable via wires to a passenger's seat. See, e.g., Murphy Fig. 3. Murphy does not address wireless transmission to multiple headphone sets and, as there is no need for such a feature, does not disclose or suggest using different frequencies for each headphone set.

Adams also fails to teach or suggest the distinct frequency configuration recited in claims 1 and 25. As admitted by the Examiner, Adams fails to disclose the use of left and right channels. Further, like Boyden, Adams relates to a video system using a single entertainment source and does not address or provide solutions for the problems associated with multiple wireless users.

Therefore, it is respectfully submitted that the cited references, when taken alone or in combination, do not disclose or suggest the use of different frequencies for different wireless headphone sets. It is respectfully submitted that it would not have

been obvious to modify Adams, in view of Murphy, and further in view of Boyden to use different frequencies for left and right channels of multiple wireless headphone sets.

Accordingly, for at least this reason, claims 1 and 25 are patentable and nonobvious over Adams, Murphy and Boyden.

**3. The combination of Adams, Murphy and Boyden does not disclose or suggest the use of two wireless transmitters for wirelessly transmitting audio signals from first and second input sources to a plurality of wireless headphone sets**

Appellants respectfully submit that the cited references, when taken alone or in combination fail to teach or suggest the use of two wireless transmitters to wirelessly transmit audio signals from first and second sources to first and second wireless headphone sets, respectively, as recited in claims 25 and 26.

As argued above, Adams relates to a video system furnishing entertainment to a single user from a single input source and is not concerned with transmission to more than one user. Although Adams discloses an optional IR transmitter for wireless headphones (col. 7, lines 23-26), Adams contains no teaching regarding multiple wireless transmitters for transmission of programs from more than one source to multiple wireless headphone sets.

The system of Murphy does not cure this deficiency in Adams. Indeed, as argued above, the system of Murphy does not address wireless transmission or the potential problems associated therewith when servicing multiple users. The Murphy system is a wired system contemplated for use in vehicles used for mass transit, such as aircraft, where headphones are connectable to a passenger's seat.

Further, the addition of Boyden does not render obvious the use of two wireless

transmitters to wirelessly transmit audio signals from first and second sources to first and second wireless headphone sets. As argued above, Boyden relates to a single user system operating with a single audio source. Therefore, Boyden does not contain any disclosure regarding wireless transmission of audio signals from multiple input sources to multiple headphone sets. Boyden does not contemplate multiple headphone sets that allow users to listen to audio from multiple sources. Further, as stated above, Boyden discourages the use of headphones altogether. See col. 1, line 30-50.

Therefore, the combination of Adams, Murphy and Boyden would not render obvious a first wireless transmitter adapted to wirelessly transmit audio signals from one of two input sources to a first wireless headphone set, and a second wireless transmitter adapted to wirelessly transmit audio signals from another of the two input sources to a second wireless headphone set.

Accordingly, for at least this reason, claims 25 and 26 are patentable and nonobvious over Adams, Murphy and Boyden.

**4. There is no motivation to combine Adams, Murphy and Boyden to develop the claimed display device**

Appellants submit that, whether based on the teachings of the prior art, or the knowledge of persons of ordinary skill in the art, there is no motivation to combine Adams, Murphy and Boyden to establish obviousness of the claimed display device.

The burden of presenting a prima facie case of obviousness is satisfied by showing that some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead one to combine the relevant

teachings of the references. In re Fine, 837 F.2d 1071, 1074 (Fed. Cir. 1988). The suggestion to combine the references should come from the prior art, and the Examiner cannot use hindsight gleaned from the invention itself to pick and choose among related disclosures in the prior art to arrive at the claimed invention. Id. at 1075.

The Examiner relies on the combination of Adams, Murphy and Boyden to develop a display device comprising one or two wireless transmitters for wirelessly transmitting audio signals from at least two input sources to multiple wireless headphone sets. Further, the Examiner relies on the combination of the cited references as rendering obvious the use of different left and right channels for different wireless headphone sets. See Final Action at 2-4.

Appellants submit that the Examiner's reliance on the combination of the cited references is misplaced. Indeed, the Examiner focuses too narrowly on specific "keywords" and "catch phrases" without due consideration to the relevant contexts of the claimed embodiments and the teachings of the cited references, resulting in a strained, erroneous interpretation. In this regard, the relevant teachings of Adams, Murphy and Boyden, as cited in the Final Action, are so fundamentally distinct in terms of both functionality and purpose, that one of ordinary skill in the art would not be motivated to combine the teachings in the manner suggested.

Adams does not include any teaching that would lead one of ordinary skill in the art to combine the teachings of the references to develop the claimed embodiments. Adams discloses a single input source system, (*i.e.*, a DVD player) primarily concerned with the processing of video images and techniques for deinterlacing and enhancing video images, and is not at all concerned with wireless transmission of audio signals

from multiple input sources to multiple headphone sets. See col. 1, lines 23-26. Indeed, Adams contains no disclosure regarding wireless transmission of audio signals from multiple input sources to multiple headphone sets. Furthermore, as admitted by the Examiner, Adams does not disclose the use of left and right channels. Final Action at 3. Adams' extremely limited disclosure of an IR wireless transmitter for wireless headphones as shown in FIG. 2C and described at col. 7, lines 23-26, shows only a single transmitter for transmitting audio to a single wireless headphone set and is, at best, tangential to the overall object and purpose of the Adams invention. Therefore, there is no objective teaching in Adams to lead one to combine Adams with either Murphy or Boyden to develop the claimed invention.

Murphy also does not include any teaching that would lead one of ordinary skill in the art to combine the teachings of the references to develop the claimed embodiments. Murphy discloses a position related multi-media presentation system, wherein a position determining system generates position information of a vehicle and the multimedia system presents information related to the position of the vehicle to an occupant of the vehicle. Such information can include video including views related to features over which an aircraft is flying. As stated above, the system of Murphy is a wired system and contains no disclosure regarding a wireless transmitter or wireless transmission of any type of signals. The Examiner relies on Murphy to teach the use of multiple headphone sets and providing different input sources. Final Action at 3. However, Murphy, being a wired system primarily concerned with position related information, is so fundamentally distinct from the claimed embodiments and the cited wireless aspects of Adams and Boyden in terms of both functionality and purpose, that

one of ordinary skill in the art would not be motivated to combine the teachings in the manner suggested by the Examiner. Accordingly, there is simply no motivation found in Murphy to combine Murphy with Adams or Boyden to develop the display device of the claimed embodiments, wherein wireless transmission takes place.

Boyden also does not include any teaching that would lead one of ordinary skill in the art to combine the teachings of the references to develop the claimed embodiments. Indeed, not only does Boyden fail to include any suggestion to combine the cited references, Boyden also teaches away from such a combination by discouraging the use of headphones.

Boyden discloses a wearable audio system including left and right acoustic modules adapted to be worn on the head of a wearer. The primary objective of Boyden is to develop a wearable audio system that serves as a substitute to earphones and headphones. Boyden discourages the use of headphones by stating that they are often uncomfortable and block or attenuate environmental sounds causing a wearer to lose contact with the surroundings. See col. 1, lines 30-50.

The Examiner relies on Boyden as teaching an audio system that has left and right audio channels with different frequency signals. Final Action at 3-4. However, Boyden cannot be combined with Adams or Murphy to render obvious this feature. Both Adams and Murphy use headphones and Boyden discourages use of headphones. Therefore, Boyden cannot be relied on to teach features having to do with headphones. Boyden teaches away from the combination and cannot be combined with the cited references to develop the claimed display device having different frequencies for channels between multiple headphone sets.

Moreover, in contrast with the claimed embodiments and the cited references, Boyden does not disclose a display system. Furthermore, as argued above, Boyden relates to an audio system providing audio signals from a single source to a single user and is not concerned with providing audio from multiple sources to multiple headphone sets.

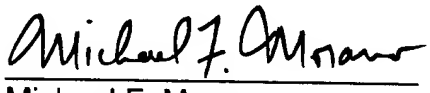
Therefore, Boyden, by discouraging use of headphones and by disclosing a single source, a single user and an audio only system, is so fundamentally distinct from the claimed embodiments and Adams and Boyden in terms of both functionality and purpose, that one of ordinary skill in the art would not be motivated to combine the teachings in the manner suggested by the Examiner. Thus, there is simply no motivation found in Boyden to combine Boyden with Adams or Murphy to develop the display device of the claimed embodiments.

In sum, there is no motivation to combine Adams, Murphy and Boyden to establish obviousness of the claimed display device and the Examiner's rejection of claims 1, 25 and 26 based on same should be reversed.

## B. CONCLUSION

For at least the reasons set forth above, claims 1, 25 and 26 are patentable and nonobvious over the combination of Adams, Murphy and Boyden. Moreover, given that all remaining obviousness rejections are based entirely, or in part, on the combination of Adams, Murphy and Boyden, as applied to base claims 1 and 26, the obviousness rejections for all dependent claims are legally deficient at least for the same reasons given for claims 1 and 26. Therefore, it is respectfully requested that the Board reverse all claim rejections under 35 U.S.C. § 103(a).

Respectfully submitted,



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**APPENDIX A**

1. A display device for a vehicle having a seat, comprising:

an assembly housing adapted to mount the display device for view by a passenger at a rear seat;

a receiver adapted to receive at least one of video and audio signals from at least two input sources; and

at least one wireless transmitter operatively coupled to said receiver, adapted to wirelessly transmit the audio signals from the at least two input sources to each wireless headphone set of a plurality of headphone sets as a left audio channel and a right audio channel, each of the channels having a different frequency for each wireless headphone set of the plurality of wireless headphone sets;

wherein said display device is adapted to reproduce the video signals for viewing by the passenger; and

wherein the at least two input sources comprise one input source providing first audio signals to one wireless headphone set of the plurality of wireless headphone sets and a second input source providing second audio signals to a second wireless headphone set of the plurality of wireless headphone sets.

2. The display device according to claim 1, wherein the audio signals are at least one of radio frequency and infrared signals.

3. The display device according to claim 1, wherein said receiver receives an

input signal from an external media source.

4. The display device according to claim 3, wherein the external media source includes at least one of a television tuner, a video cassette player (VCP), a compact disk (CD) player, a digital video disk (DVD) player, an AM/FM radio, a video game player, global navigation data, and e-mail.

5. The display device according to claim 1, further comprising signal processing facilities adapted to perform at least one of signal processing and signal conversion, with respect to at least one of the audio signals and the video signals.

6. The display device according to claim 5, wherein said signal processing facilities are adapted to perform at least one of digital signal processing, encoding, decoding, encrypting, decrypting, compressing, decompressing, analog-to-digital conversion (ADC), digital-to-analog conversion (DAC), and error correction.

7. The display device according to claim 1, wherein said display device employs one of a liquid crystal display (LCD), light emitting diodes (LEDs), and a gas plasma.

8. The display device according to claim 7, wherein said liquid crystal display is based upon one of active matrix technology and passive matrix technology.

9. The display device according to claim 1, wherein said display device employs touch screen technology.

10. The display device according to claim 1, wherein said display device includes one of picture-in-picture and split screen capability.

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. The display device according to claim 1, wherein the display device further comprises a video bus and an audio bus.

16. The display device according to claim 15, wherein said video bus is coupled to said display device and said audio bus is coupled to said at least one wireless transmitter.

17. The display device according to claim 1, wherein said at least one wireless transmitter comprises an optical transmitting device and at least one wireless headphone set comprises a photosensitive device.

18. The display device according to claim 1, wherein said at least one wireless transmitter and at least one wireless headphone set comprise an antenna.

19. The display device according to claim 1, wherein at least one wireless headphone set comprises a digital-to-analog converter.

20. The display device according to claim 1, wherein said at least one wireless transmitter is adapted to transmit the audio signals based on Code-Division Multiple Access (CDMA) technology.

21. The display device according to claim 20, further comprising signal processing facilities, and wherein at least some CDMA operations are performed by said signal processing facilities.

22. The display device according to claim 20, wherein the left audio channels and right audio channels of the audio signals are coded separately.

23. The display device according to claim 20, wherein at least one wireless headphone set comprises a selector for selecting one of a plurality of the audio signals for audio reproduction.

24. The display device according to claim 20, wherein at least one wireless headphone set comprises at least one of a Walsh code generator and pseudo random number (PN) sequence generator for decoding the audio signals.

25. A display device for a vehicle having a seat, comprising:

an assembly housing adapted to mount the display device for view by a passenger at a rear seat;

a video bus adapted to couple video signals from external media sources;

an audio bus adapted to couple audio signals from the external media sources; and

at least two wireless transmitters operatively coupled to said audio bus,

wherein a first wireless transmitter is adapted to wirelessly transmit the audio signals from a first external media source to a first wireless headphone set as a left audio channel and a right audio channel,

wherein a second wireless transmitter is adapted to wirelessly transmit the audio signals from a second external media source to a second wireless headphone set as the left audio channel and the right audio channel, each of the left audio and right audio channels having a different frequency for each of the first and second wireless headphone sets, and

wherein said display device is adapted to reproduce the video signals for viewing by

the passenger.

26. A display device for a vehicle having a seat, comprising:

an assembly housing adapted to mount at the display device for view by a passenger at a rear seat;

a bus adapted to couple at least one of video and audio signals from each of at least two input sources; and

at least two wireless transmitters operatively coupled to said bus,

wherein a first wireless transmitter is adapted to wirelessly transmit the audio signals from the one of the two input sources to a first wireless headphone set,

wherein a second wireless transmitter is adapted to wirelessly transmit the audio signals from the other of the two input sources to a second wireless headphone set, and

wherein said display device is adapted to reproduce the video signals for viewing by the passenger.

27. The display device according to claim 1, wherein the at least two input sources comprise signals from a video signal generating device and signals from an audio signal generating device.

28. (Canceled)